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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,222	01/20/2004	Rolf Joachim Mehlhorn	088799.00002	6448

44955 7590 05/25/2011
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EXAMINER	
WEDDINGTON, KEVIN E	

ART UNIT	PAPER NUMBER
1629	

MAIL DATE	DELIVERY MODE
05/25/2011	PAPER

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The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROLF JOACHIM MEHLHORN

Appeal 2010-010938
Application 10/759,222
Technology Center 1600

Before DONALD E. ADAMS, DEMETRA J. MILLS, and STEPHEN WALSH, *Administrative Patent Judges*.

WALSH, *Administrative Patent Judge*.

DECISION ON REQUEST FOR REHEARING

Rolf Joachim Mehlhorn (Appellant) requests reconsideration of the Decision on Appeal entered January 18, 2011, which affirmed the rejection of claims 1-12 on the ground of obviousness.

BACKGROUND

In its Decision, the Board agreed with the Examiner's findings concerning the scope and content of the prior art, and concluded that the record evidence supported the Examiner's conclusion of obviousness. The Examiner had found that prior art patents of Nichols, Deamer, and Cramer,

taught methods of loading liposomes using pH gradients. We agreed with the Examiner that the prior art methods were similar to Appellant's method, and there were no nonobvious differences between the methods. We concluded that certain features recited in Appellant's claims served to identify latent properties of the prior art methods or materials rather than to define nonobvious methods or materials.

Appellant contends that non-obviousness of the claimed method is predicated on the "surprising finding that . . . a drug may be maintained within a vesicle for a substantial period of time after the pH gradient used to load the vesicle has been destroyed" if a vesicle/buffer combination is used in which the vesicle is impermeable to the buffer. (Req. Reh'g 1-2.) Appellant disagrees that vesicle buffer impermeability was an inherent or latent property of the prior art vesicles. (*Id.* at 2.) Appellant provides a review of each reference (*id.* at 2-3) and summarizes: "there appears to be no support for the position that maintenance of a concentration gradient in a vesicle as required by the instant invention is an inherent or latent property of vesicles – in fact quite the opposite is suggested by the cited references" (*id.* at 3).

ANALYSIS

The claims define a method of loading lipid-like vesicles with a chemical species and include the step "adjusting the exterior solution to a physiologically benign pH; wherein: the chemical species is substantially maintained in the vesicle for at least one quarter hour after the adjustment of the exterior solution." According to Appellant, both Nichols and Deamer show that when a pH gradient is destroyed, the concentration gradient of the chemical species across the vesicle collapses. Appellant thus argues that

maintenance of the gradient "as required by the instant invention," could not be an inherent or latent property of the prior art vesicles. (Req. Reh'g 3.)

We agree that Nichols and Deamer demonstrate the collapse of a gradient when the exterior solution is adjusted to pH 5. However, the claimed method adjusts to "a physiologically benign pH." Appellant does not demonstrate that a person of ordinary skill in the art would have interpreted the claim term to include pH 5. In our review of the Specification we find this indication:

> [i]n instances where it is desirable to inject the animal immediately with the vesicle containing solution having the adjusted pH, the pH is adjusted to a physiologically benign value of between about 7 and about 7.8, preferably about 7.4.

(Spec. 13.) Given that the prior art gradient collapse occurs at pH 5, not in the "between about 7 and about 7.8" pH range indicated as "physiologically benign," we find Appellant's evidence insufficient to rebut the Examiner's original finding that because the claims use the same materials as the prior art, the prior art liposomes would have had the claimed properties.

The Request redirects attention to the Nichols and Deamer disclosures. We have reviewed those disclosures again as requested. We note that Nichols prepared its liposomes with egg phospatidylcholine (Nichols at 270), and Deamer prepared its liposomes from egg lecithin (Deamer at 324). Appellant's Specification indicates that phosphatidyl choline may be used in the invention. (Spec. 18, Example 3.) We again find no error in the Examiner's finding that the claimed method uses the prior art materials.

CONCLUSIONS

We have reconsidered all the evidence, but conclude that the totality of the evidence of record is sufficient to show obviousness.

SUMMARY

We deny the requested relief.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

DENIED

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